

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

	22 MAR 2004	
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## PCT

**WRITTEN OPINION**  
(PCT Rule 66)

To:

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Date of mailing  
(day/month/year)

16.03.2004

Applicant's or agent's file reference

68633

**REPLY DUE**

**within 3 month(s)**  
from the above date of mailing

International application No.  
PCT/EP 03/07239

International filing date (day/month/year)  
07.07.2003

Priority date (day/month/year)  
17.07.2002

International Patent Classification (IPC) or both national classification and IPC  
B21H9/02, B21H9/02

Applicant

S.M.A.R.T. S.R.L. et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
 

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is:

Name and mailing address of the international preliminary examining authority:



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Authorized Officer

Formalities officer (incl. extension of time limits)  
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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-4 as originally filed

**Claims, Numbers**

1-6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

## WRITTEN OPINION

International application No. PCT/EP 03/07239

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Novelty (N)	Claims	1-3,6
Inventive step (IS)	Claims	1-4,6
Industrial applicability (IA)	Claims	

### 2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Reference is made to the following documents:**

D1: US-A-3 733 867  
D2: US-A-5 193 966  
D3: JP-A-10305337  
D4: JP-A-2001025834  
D5: JP-A-2001185564

**2. Clarity of claims:**

In claims 1, 5 and 6 reference is made to a rotary rolling machine with **at least one** roller tool, but the insertion step is always defined by reference to **the** or **said** roller, i.e. one only roller. Therefore the following analysis is based on the assumption that claims 1, 5 and 6 are restricted to a rotary rolling machine with one roller tool.

**2. Independent claim 1:**

Document D1 discloses:

A method for inserting blanks (26) to be threaded in automatic rotary rolling machines (11), comprising an insertion step, which consists in inserting in a working position a certain number of parts at each turn of the spindle in order to machine them by rolling with one roller tool (18), during the insertion step each inserted part engaging the roller (18) at a portion of the outer surface (24) of said roller (18), whereby the part insertion step occurs at such a rate that the portions of the outer surface of the roller tool (18) that engage the inserted parts (26) in the working position vary continuously at each turn of the spindle (column 1, line 57 to column 5, line 66).

All features of claim 1 are known from D1. The subject-matter of claim 1 is not new (Article 33(2) PCT).

**3. Dependent claims 2 to 4:**

Dependent claims 2 to 4 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in

respect of novelty and/or inventive step, the reasons being as follows:

Claim 2: see D1, column 2, lines 25 to 37 and column 2, line 63 to column 3, line 5.

Claim 3: see D1, column 3, line 65 to column 4, line 68.

Claim 4: an electrical control of a device is actually a normal workshop practice and e.g. shown in D2 (column 3, lines 14-17; the expression "cyclically" implies an electronic control).

**4. Independent claim 5:**

The subject-matter of claim 5 is unclear due to the expression "said insertion device" in the characterizing part of claim 5. Such an insertion device is not defined in the first part of the claim. It is assumed that "said insertion device" is in fact the apparatus for picking the parts from the guide.

Document D1, which is considered to represent the closest prior art, discloses:

An automatic rotary rolling machine (title), comprising one roller tool (18), at least one guide (32) for feeding the parts to be machined (26), and an apparatus (33-48) for picking the parts (26) from said guide (32) and inserting them in an active position (28), the apparatus (33-48) comprising a reciprocating member (33) that is provided with a means suitable to pick a part (26) to be machined from the at least one guide (32) and insert it in a working position (28), said apparatus (33-48) being suitable to insert the parts to be machined (26) at an adjustable rate, so that the portions of the outer surface of the roller tool (18) that engage the parts (26) inserted in the working position are changed continuously at each turn of the spindle (column 1, line 57 to column 5, line 66).

The subject-matter of claim 5 differs from D1 in that

the reciprocating member is actuated by an electronically controlled linear motor.

The technical effect thereby achieved is a very short response time of the reciprocating member to electronic control signals, whereby the electronic control signals can be generated at any moment. This enables a constant variation of the feeding rate and thereby a further harmonisation of wear over the periphery of the roller tool.

None of the prior art documents dealing with rotary rolling machines suggests the use of an electronically controlled linear motor as actuating device for the reciprocating member. In the prior art the reciprocating member is either driven mechanically by cam drives or pneumatically. Documents D3 to D5 would not give a hint to provide such a linear motor in an automatic rolling machine, since they relate to completely different types of machines.

The subject-matter of claim 5 is considered to be new and inventive (Article 33(2) and 33(3) PCT).

**5. Independent claim 6:**

The subject-matter of claim 6 is unclear (Article 6 PCT). Due to the general expression "an apparatus **for an automatic rotary rolling machine**", the purpose of this apparatus is not perceivable. Furthermore features of the apparatus are defined by features of its use and its relation to the rolling machine. The only substantial apparatus features comprised in claim 6 are the following:

Apparatus comprising a reciprocating member that is provided with a means for picking a part to be machined from a guide and for inserting it in an active position, whereby the reciprocating member is actuated by a linear motor that is controlled electronically.

But such devices are known from documents D3 to D5, which all show:

Apparatus comprising a reciprocating member (D3: moving clipper 7; D4: moving gripper 34; D5: nozzle 52) that is provided with a means for picking a part to be machined from a guide and for inserting it in an active position (D3: by upper and lower clamps of clipper 7; D4: by gripping means of gripper 34; D5: by suction device in nozzle 52), whereby the reciprocating member is actuated by a linear motor that is controlled electronically (D3: linear motor 8; D4: linear motor 33a; D5: linear motor 20).

The subject-matter of claim 6 is not new (Article 33(2) PCT).

**6. Remarks:**

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

Independent claim 5 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

In addition, it should be clear from the description which features of the subject-matter of claim 5 are already known in combination from the document D1 (see the PCT Guidelines, III-2.3a).